AMENDMENTS TO THE CLAIMS

Claims 1-13 (Cancelled).

14. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode having a metallic silicide layer on a semiconductor substrate;

decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries comprising performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a mixture gas of chief elements of nitrogen and ammonia; and

forming a spacer consisting of an oxide film on a side wall of the gate electrode;

wherein the metallic silicide layer comprises a tungsten silicide layer, and said performing of the heat treatment is conducted in an atmosphere including ammonia in a range of 1% to 3%.

15. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries comprising performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a mixture gas of chief elements of nitrogen and ammonia; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode;

wherein said decreasing of the grain boundaries is performed after performing a reduced pressure process.

16. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries comprising performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a mixture gas of chief elements of nitrogen and ammonia; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode;

wherein said performing of the heat treatment is conducted in an atmosphere including an oxidizable gas, and said decreasing of the grain boundaries is performed after performing a reduced pressure process of reducing the oxidizable gas level to less than 100 ppm.

Claim 17 (Cancelled).

18. (Currently Amended) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a tungsten silicide layer ~~on a semiconductor substrate~~, a metallic polysilicon layer under the tungsten silicide layer, and an SiN layer on the tungsten silicide layer;

decreasing grain boundaries on a surface of the tungsten silicide layer, at least a portion of the surface of the tungsten silicide layer being exposed, said decreasing of the grain boundaries comprises performing a heat treatment in an atmosphere including ammonia in a range of 1% to 3%; and

forming a spacer consisting of an oxide film on a side wall of the gate electrode.

19. (Previously Presented) The method of claim 18, wherein said performing of the heat treatment is conducted in an atmosphere including an oxidizable gas of less than 100 ppm.

20. (Previously Presented) The method of claim 18, wherein said performing of the heat treatment is conducted at temperature in a range of 700°C to 800°C for a time period in a range of 30 seconds to 40 seconds.

21. (Previously Presented) The method of claim 18, wherein said decreasing of the grain boundaries is performed after performing a reduced pressure process.

22. (Previously Presented) The method of claim 18, wherein said performing of the heat treatment is conducted in an atmosphere including an oxidizable gas, and said decreasing of the grain boundaries is performed after performing a reduced pressure process of reducing the oxidizable gas level to less than 100 ppm.

23. (Previously Presented) The method of claim 18, wherein said performing of the heat treatment is conducted at a temperature in a range of 700°C to 800°C and is performed after performing a reduced pressure process at a pressure of 13 Pa to 65 Pa.

24. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries being performed after performing a reduced pressure process; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode.

25. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a chief element of nitrogen gas.

26. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a chief element of argon gas.

27. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere including an oxidizable gas of less than 100 ppm.

28. (Previously Presented) The method of claim 24, wherein the metallic silicide layer comprises a tungsten silicide layer, and said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer at temperature in a range of 700°C to 800°C for a time period in a range of 30 seconds to 40 seconds.

29. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere including an oxidizable gas, and said reduced pressure process comprises reducing the oxidizable gas level to less than 100 ppm.

30. (Previously Presented) The method of claim 24, wherein the metallic silicide layer comprises a tungsten silicide layer, and said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer at a temperature in a range of 700°C to 800°C and after said performing of the reduced pressure process at a pressure of 13 Pa to 65 Pa.

31. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

performing a reduced pressure process;

after said performing of the reduced pressure process, decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere including an oxidizable gas, and said reduced pressure process comprises reducing the oxidizable gas level to less than 100 ppm; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode.

32. (Previously Presented) The method of claim 31, wherein said performing of the heat treatment is conducted in an atmosphere consisting of a chief element of nitrogen gas.

33. (Previously Presented) The method of claim 31, wherein said performing of the heat treatment is conducted in an atmosphere consisting of a chief element of argon gas.

34. (Previously Presented) The method of claim 31, wherein the metallic silicide layer comprises a tungsten silicide layer, and said performing of the heat treatment is conducted at temperature in a range of 700°C to 800°C for a time period in a range of 30 seconds to 40 seconds.

35. (Previously Presented) The method of claim 31, wherein the metallic silicide layer comprises a tungsten silicide layer, and said performing of the heat treatment is conducted at a temperature in a range of 700°C to 800°C and is performed after performing said reduced pressure process at a pressure of 13 Pa to 65 Pa.